

## ZOOLOGY OF THE HIGH PLAINS: PART I—ICHTHYOLOGY AND HERPETOLOGY

By M. J. LITTLEJOHN

Zoology Department, University of Melbourne

Our knowledge of the fish, amphibians and reptiles of this area is fragmentary and the literature records are scattered. Thus this account should not be considered complete in any way. The fauna of the adjacent Monaro Region of New South Wales is better known, and since it is effectively continuous with the eastern highlands of Victoria it seems logical to consider it also.

### PISCES

Only one indigenous family of fish (Teleostei : Galaxiidae) is known to occur in the mountainous regions of south-eastern Australia. One species has been recorded from such habitats in Victoria.

#### GALAXIIDAE

##### *Galaxias coxii* Macleay

Localities: L. Tarli Karng (= L. Nigothoruk), altitude 3,100 ft on Mt Wellington (Lucas 1892, Regan 1905, Mack 1936); confined to the mountainous country E. of Port Phillip Bay (Mack 1936); Bogong High Plains (Garnet 1959).

The New South Wales distribution of this species is described as the mountains and highlands of the Great Dividing Range, excepting the southern portion (Stead 1906). The type locality in Mt Wilson, N.S.W., c. 3,500 ft (Macleay 1881).

A second species, *G. findlayi* Macleay, occurs on the highlands of the Monaro and Snowy R. Districts of N.S.W., particularly in the neighbourhood of Mt Kosciusko (Stead 1906). This species was described from specimens collected in icy ponds on the snowy range in the vicinity of Mt Kosciusko (Macleay 1883). Tadgell (1930) collected specimens of *Galaxias* in the Pretty Valley (altitude 5,600 ft) on the Bogong High Plains. These were identified as *G. findlayi* by J. A. Kershaw. Since later collections from this area have been identified as *G. coxii* (Garnet 1959), and because *G. findlayi* appears to be restricted to the Monaro Region while *G. coxii* is widespread, it would be desirable to check Kershaw's identification.

### AMPHIBIA

Four species of anurans in two families occur at altitudes above 4,000 ft in Victoria.

#### LEPTODACTYLIDAE

##### *Crinia signifera* Girard

Localities: Rocky Valley Reservoir, c. 5,000 ft, on the Bogong High Plains (M.J.L.), Lake Mountain at 4,200 ft (M.J.L.).

This species has also been collected as high as 6,500 ft on Mt Kosciusko, N.S.W. (Parker 1940). It is a wide-ranging and common species at lower altitudes.

***Crinia laevis* Günther**

Locality: Lake Mountain at 4,200 ft (M.J.L.).

One egg mass and a number of tadpoles, almost certainly of this species were collected at the above locality. Some of the tadpoles were reared through metamorphosis. The slight doubt concerning their identity arises from the difficulty in identifying recently metamorphosed frogs. *Crinia laevis* also occurs commonly at lower altitudes in southern Victoria.

***Philoria frosti* Spencer**

Locality: Mt Baw Baw (Spencer 1901).

This frog has been collected by the author (M.J.L.) above 4,000 ft at the same locality. It appears to be restricted to Mt Baw Baw.

Another alpine species of N.S.W. is *Pseudophryne corroboree* Moore. It is found in the Kosciusko and Brindabella regions (Moore 1961) as high as 5,680 ft, and is believed to be restricted to high altitudes.

## HYLIDAE

***Hyla ewingi* Duméril and Bibron**

Localities: Mt Baw Baw (Copland 1957); Bogong High Plains (Garnet 1959); Lake Mountain at 4,200 ft (M.J.L.); Rocky Mountain Reservoir, c. 5,000 ft, on the Bogong High Plains (M.J.L.); Mt Buller Village area, c. 5,300 ft (M.J.L.).

*Hyla ewingi* has also been collected at 6,500 ft on Mt Kosciusko (Moore 1961). It is a common species at low altitudes.

## REPTILIA

Species in two families of lizards and one family of snakes have been recorded from high altitudes in Victoria.

## LACERTILIA

## AGAMIDAE

***Amphibolurus diemensis* (Gray)**

Locality: Mt Wellington, 'met with amongst rocks at considerable elevations in the mountains' (Lucas and Frost 1894, as *angolifer*).

## SCINCIDAE

***Sphenomorphus quoyii* (Duméril and Bibron)**

Locality: Bogong High Plains (Garnet 1959).

***Leiolopisma entrecasteauxii* Duméril and Bibron**

Locality: Mt Baw Baw (Lucas and Frost 1894).

***Leiolopisma pretiosum* O'Shaughnessy**

Locality: Mt Baw Baw (Lucas and Frost 1894).

Copland (1947) lists 6 species of lizards from heights above 5,000 ft on Mt Kosciusko, N.S.W. They are: *Amphibolurus diemensis*, *Tiliqua casuarinae* (Duméril and Bibron), *Egernia whitii* (Lacépède), *Sphenomorphus quoyii*, *Leiolopisma entrecasteauxii* and *Hemiergis decresiensis* (Fitzinger). Costin (1954) cites Copland's records plus 2 others: *Amphibolurus muricatus* (Shaw) and *Diplo-*

*dactylus vittatus* Gray from the alpine and subalpine zones of the Monaro Region of N.S.W.

## OPHIDIA

## ELAPIDAE

*Denisonia superba* (Günther)

Locality: Bogong High Plains (Garnet 1959).

*Denisonia coronoides* (Günther)

Locality: Pretty Valley, Bogong High Plains (Garnet 1959). Pretty Valley has an altitude of 5,600 ft.

These 2 species are also recorded from above 5,000 ft on Mt Kosciusko by Copland (1947).

One other record which should perhaps be noted is that of Spencer (1901) who writes that the first specimens of *Philoria frosti* were taken from a snake (*Hoplocephalus curtus* = ? *Denisonia curta* Schlegel) on Mt Baw Baw.

## Acknowledgement

Field travelling expenses were met by the University of Melbourne Research Grant allocation to the Zoology Department.

## References

- COPLAND, S. J., 1947. Reptiles occurring above the winter snowline at Mount Kosciusko. *Proc. Linn. Soc. N.S.W.* 72: 69-72.
- , 1957. Australian tree frogs of the genus *Hyla*. *Proc. Linn. Soc. N.S.W.* 82: 9-108.
- COSTIN, A. B., 1954. A study of the ecosystems of the Monaro Region of New South Wales. Soil Conservation Service of New South Wales, Sydney.
- GARNET, J. R., 1959. The Bogong High Plains. *Vict. Nat.* 76: 213-216.
- LUCAS, A. H. S., 1892. A new species of fresh water fish from Lake Nigotheruk, Mount Wellington, Victoria. *Proc. Roy. Soc. Vict.* 4: 27-28.
- LUCAS, A. H. S., and FROST, C., 1894. The lizards indigenous to Victoria. *Proc. Roy. Soc. Vict.* 6: 24-92.
- MACK, G., 1936. Victorian species of the genus *Galaxias*, with a description of two new species. *Mem. Nat. Mus. Vict.* 9: 98-101.
- MACLEAY, W., 1881. Description of a new species of *Galaxias* from Mount Wilson, with remarks on the distribution of the genus. *Proc. Linn. Soc. N.S.W.* 5: 45-47.
- , 1883. On a species of *Galaxias* found in the Australian Alps. *Proc. Linn. Soc. N.S.W.* 7: 106-109.
- MOORE, J. A., 1961. The frogs of eastern New South Wales. *Bull. Amer. Mus. Nat. Hist.* 121: 149-386.
- PARKER, H. W., 1940. The Australasian frogs of the family Leptodactylidae. *Navit. Zool.* 42: 1-106.
- REGAN, C. T., 1905. A revision of the fishes of the Family Galaxiidae. *Proc. Zool. Soc. Lond.* 1905: 363-384.
- SPENCER, B., 1901. Two new species of frogs from Victoria. *Proc. Roy. Soc. Vict.* 13: 175-178.
- STEAD, D. G., 1906. Fishes of Australia. William Brookes and Co., Sydney.
- TADGELL, A. J., 1930. Mount Nelson and its surroundings. *Vict. Nat.* 46: 227-235.